

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A loudspeaker diaphragm having a portion affixed with a coil,
the loudspeaker diaphragm comprising:
an edge portion located outside of the portion affixed with the coil; and
a center portion located inside of the portion affixed with the coil;
wherein the center portion is provided with a rib,
wherein the edge portion has a convex portion having a protruding shape in cross section,
and
wherein the rib has a height lower than a height of the edge portion in cross section.

2. (Canceled)

3. (Original) The loudspeaker diaphragm according to claim 1, wherein
the coil is shaped so as to extend along a first direction, and
a direction in which the rib is provided includes a component of a second direction
perpendicular to the first direction.

4. (Original) The loudspeaker diaphragm according to claim 3, wherein
the rib is provided so as to extend along the second direction.

5. (Original) The loudspeaker diaphragm according to claim 3, wherein
a plurality of said ribs are provided to form a lattice shape at a predetermined angle with
respect to the first direction.

6. (Original) The loudspeaker diaphragm according to claim 1, wherein the rib is provided on a side of the portion affixed with the coil, and has a height lower than a height of the coil.

7. (Original) The loudspeaker diaphragm according to claim 1, wherein the rib is formed integrally with the center portion.

8. (Original) The loudspeaker diaphragm according to claim 1, wherein the rib is attached to the center portion.

9. (Original) The loudspeaker diaphragm according to claim 1, wherein the coil is shaped so as to extend along a first direction, the edge portion is shaped so as to have an elasticity in the first direction equal to an elasticity in a second direction perpendicular to the first direction, and the edge portion is shaped so as to extend along the first direction.

10. (Original) The loudspeaker diaphragm according to claim 1, wherein the coil is a printing voice coil formed integrally with the loudspeaker diaphragm.

11. (Original) The loudspeaker diaphragm according to claim 1, wherein the loudspeaker diaphragm is molded after being formed integrally with the coil affixed thereto.

12. (Original) The loudspeaker diaphragm according to claim 1, wherein
at least part of a portion along an outer rim of the coil on the edge portion protrudes from
a side of the portion affixed with the coil.

13. (Original) A loudspeaker comprising:
the loudspeaker diaphragm according to claim 1;
a housing supporting the loudspeaker diaphragm;
a voice coil affixed to the loudspeaker diaphragm; and
a magnetic circuit.

14. (Original) The loudspeaker according to claim 13, wherein
the magnetic circuit includes at least two magnets placed at both sides with respect to a
vibrating direction of the loudspeaker diaphragm so as to sandwich the voice coil.

15. (Currently Amended) An electronic device comprising:
the loudspeaker according to claim 14; and
a supporting housing supporting the loudspeaker inside thereof.

16. (Currently Amended) The loudspeaker according to claim 13, wherein
the magnetic circuit includes ~~said~~ at least two magnets ~~are placed~~ at both sides ~~so as to be~~
~~magnetized in directions opposite to each other~~ with respect to a vibrating direction of the
loudspeaker diaphragm so as to sandwich the voice coil.

17. (Currently Amended) An electronic device comprising:
the loudspeaker according to claim 16; and
a supporting housing supporting the loudspeaker inside thereof.

18. (Currently Amended) An electronic device comprising:
the loudspeaker according to claim 13; and
a supporting housing supporting the loudspeaker inside thereof.

19. (Currently Amended) A loudspeaker diaphragm having a portion affixed with a coil,
the loudspeaker diaphragm comprising:

an edge portion located outside of the portion affixed with the coil; and
a center portion located inside of the portion affixed with the coil, ~~wherein~~
wherein the edge portion is formed integrally with the center portion, and
wherein the center portion is provided with a strengthening portion which is flat in cross
section and is thicker than the edge portion.

20. (Currently Amended) A loudspeaker diaphragm extending along a first direction,
wherein a coil being is affixed to a portion of the loudspeaker diaphragm and extends along the
first direction, the loudspeaker diaphragm comprising:

an edge portion located outside of the portion affixed with the coil; and
a center portion located inside of the portion affixed with the coil,
wherein the edge portion has a shape so that an elasticity at a portion thereof close to a
center of the diaphragm with respect to in the first direction is larger than ~~approximately equal to~~

an elasticity at a portion thereof far away from the center of the diaphragm in a second direction perpendicular to the first direction.

21. (Currently Amended) The loudspeaker diaphragm according to claim 20, wherein the edge portion includes a convex portion having a protruding shape in cross section and annularly surrounding the portion affixed with the coil, and a height of a portion of the convex portion that is oriented in the first direction is higher than a height of a portion of the convex portion that is oriented in a the second direction perpendicular to the first direction.

22. (Currently Amended) The loudspeaker diaphragm according to claim 20, wherein portions on the edge portion which are located on both sides of the coil with respect to a center axis of the coil in the first direction are each provided with a rib extending approximately in parallel with a the second direction perpendicular to the first direction.

23. (Original) The loudspeaker diaphragm according to claim 20, wherein the coil is a printing voice coil formed integrally with the loudspeaker diaphragm.

24. (Original) The loudspeaker diaphragm according to claim 20, wherein the loudspeaker diaphragm is molded after being formed integrally with the coil affixed thereto.

25. (Original) The loudspeaker diaphragm according to claim 20, wherein

at least part of a portion along an outer rim of the coil on the edge portion protrudes from a side of the portion affixed with the coil.

26. (Original) A loudspeaker comprising:

the loudspeaker diaphragm according to claim 20;

a housing supporting the loudspeaker diaphragm;

a voice coil affixed to the loudspeaker diaphragm; and

a magnetic circuit.

27. (Original) The loudspeaker according to claim 26, wherein

the magnetic circuit includes at least two magnets placed at both sides with respect to a vibrating direction of the loudspeaker diaphragm so as to sandwich the voice coil.

28. (Currently Amended) An electronic device comprising:

the loudspeaker according to claim 27; and

a supporting housing supporting the loudspeaker inside thereof.

29. (Currently Amended) The loudspeaker according to claim 26, ~~wherein~~

wherein the magnetic circuit includes said at least two magnets are placed at both sides so
~~as to be magnetized in directions opposite to each other~~ with respect to a vibrating direction of
the loudspeaker diaphragm so as to sandwich the voice coil.

30. (Currently Amended) An electronic device comprising:

the loudspeaker according to claim 29; and
a supporting housing supporting the loudspeaker inside thereof.

31. (Currently Amended) An electronic device comprising:
the loudspeaker according to claim 26; and
a supporting housing supporting the loudspeaker inside thereof.